Refine Search

Search Results -

Terms	Documents
chlorosuccinic acid same acetic anhydride	4

Database: US Pre-Grant Publication Full-Text Database; US Patents Full-Text Database; US OCR Full-Text Database; EPO Abstracts Database; JPO Abstracts Database; Derwent World Patents Index; IBM Technical Disclosure Bulletins

Search: L22

Refine Search | Recall Text | Clear | Interrupt

Search History

DATE: Saturday, July 17, 2004 Printable Copy Create Case

Set Name side by side	Query	Hit Count	Set Name result set
DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD; PLUR=YES; OP=ADJ			
L22	chlorosuccinic acid same acetic anhydride	4	L22
L21	chlorosuccinic acid and acetic anhydride	23	L21
L20	chlorosuccinic anhydride.ti.	0	L20
DB=USPT; PLUR=YES; OP=ADJ			
L19	4265247.pn.	1	L19
DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD; PLUR=YES; OP=ADJ			
L18	L11 and sodium nitrite	2	L18
L17	L14 and sodium nitrite	4	L17
L16	L14 and sodium chloride	5	L16
L15	L14 and sodium nitrile	0	L15
L14	L12 and aspartic acid	11	L14
L13	L12 and aspartic acid and sodium nitrile and hydrochloric acid	0	L13
L12	chlorosuccinic acid	140	L12
L11	chlorosuccinic acid.ti.	6	L11

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DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD; PLUR=YES; OP=ADJ			
L9	5473104.pn. or 4143070.pn. or 4265247.pn.	8	L9
L8	wo-000069808-$.did.	0	L8
L7	wo-0069808-$.did.	0	L7
L6	wo-00069808-$.did.	0	L6
L5	wo-69808-$.did.	0	L5
L4	wo-0069808-$.did.	0	L4
L3	L2 and chlorosuccinic acid	0	L3
L2	wo-9905092-$.did. or wo-0069808-$.did.	2	L2
DB=USPT; PLUR=YES; OP=ADJ			
L1	6677476.pn.	1	L1

END OF SEARCH HISTORY

Hit List

Clear | Generate Collection | Print | Fwd Refs | Bkwd Refs | Generate OACS

Search Results - Record(s) 1 through 4 of 4 returned.

☐ 1. Document ID: US 20040102645 A1

Using default format because multiple data bases are involved.

L22: Entry 1 of 4 File: PGPB May 27, 2004

PGPUB-DOCUMENT-NUMBER: 20040102645
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20040102645 A1

TITLE: Process for preparing R-(-)-carnitin from S-(-)-chlorosuccinic acid or from a derivative thereof

PUBLICATION-DATE: May 27, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Melloni, Piero	Bresso		IT	
Cerri, Alberto	Gessate		IT	
Santagostino, Marco	Magenta		IT	

US-CL-CURRENT: 560/171; 562/553

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw De

☐ 2. Document ID: US 6677476 B1

L22: Entry 2 of 4 File: USPT Jan 13, 2004

US-PAT-NO: 6677476
DOCUMENT-IDENTIFIER: US 6677476 B1

TITLE: Process for preparing R-(-) -carnitine from S-(-)-chlorosuccinic acid or from a derivative thereof

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw De

☐ 3. Document ID: US 3804920 A

L22: Entry 3 of 4 File: USOC Apr 16, 1974

US-PAT-NO: 3804920
DOCUMENT-IDENTIFIER: US 3804920 A

TITLE: RESIN COMPOSITIONS

DATE-ISSUED: April 16, 1974

INVENTOR-NAME: DAMON J; BOHATIUK Z ; CUNNINGHAM A ; HOLTON H ; MATHAI J

US-CL-CURRENT: 525/443, 524/597, 525/444, 525/518, 525/519, 528/254

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw De

☐ 4. Document ID: US 2698347 A

L22: Entry 4 of 4 File: USOC Dec 28, 1954

US-PAT-NO: 2698347
DOCUMENT-IDENTIFIER: US 2698347 A

TITLE: Manufacture of halogen compounds

DATE-ISSUED: December 28, 1954

INVENTOR-NAME: GIRAITIS ALBERT P

US-CL-CURRENT: 570/261; 562/596, 562/603, 562/887, 564/496, 568/779, 568/841

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw De

Clear | Generate Collection | Print | Fwd Refs | Bkwd Refs | Generate OACS

Terms	Documents
chlorosuccinic acid same acetic anhydride	4

Display Format: - Change Format

Previous Page Next Page Go to Doc#

Hit List

Clear | Generate Collection | Print | Fwd Refs | Bkwd Refs | Generate OACS

Search Results - Record(s) 1 through 2 of 2 returned.

☐ 1. Document ID: US 20040102645 A1

Using default format because multiple data bases are involved.

L18: Entry 1 of 2 File: PGPB May 27, 2004

PGPUB-DOCUMENT-NUMBER: 20040102645
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20040102645 A1

TITLE: Process for preparing R-(-)-carnitin from S-(-)-chlorosuccinic acid or from a derivative thereof

PUBLICATION-DATE: May 27, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Melloni, Piero	Bresso		IT	
Cerri, Alberto	Gessate		IT	
Santagostino, Marco	Magenta		IT	

US-CL-CURRENT: 560/171; 562/553

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw. De

☐ 2. Document ID: US 6677476 B1

L18: Entry 2 of 2 File: USPT Jan 13, 2004

US-PAT-NO: 6677476
DOCUMENT-IDENTIFIER: US 6677476 B1

TITLE: Process for preparing R-(-) -carnitine from S-(-)-chlorosuccinic acid or from a derivative thereof

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw. De

Clear | Generate Collection | Print | Fwd Refs | Bkwd Refs | Generate OACS

Terms	Documents
L11 and sodium nitrite	2

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     (FILE 'HOME' ENTERED AT 17:22:11 ON 17 JUL 2004)

     FILE 'CAPLUS' ENTERED AT 17:22:44 ON 17 JUL 2004
                S 4198-33-8/REG# AND ACETIC ANHYDRIDE

     FILE 'REGISTRY' ENTERED AT 17:23:13 ON 17 JUL 2004
L1             1 S 4198-33-8/RN

     FILE 'CAPLUS' ENTERED AT 17:23:14 ON 17 JUL 2004
L2            19 S L1
L3             0 S L2 AND ACETIC ANHYDRIDE

     FILE 'REGISTRY' ENTERED AT 17:23:27 ON 17 JUL 2004
L4             0 S ACETIC ANHYDRID/CNE
L5             0 S ACETIC ANHYDRID/CN
L6             1 S ACETIC ANHYDRIDE/CN

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                S 4198-33-8/REG# AND  108-24-7/REG#

     FILE 'REGISTRY' ENTERED AT 17:25:03 ON 17 JUL 2004
L7             1 S 108-24-7/RN

     FILE 'CAPLUS' ENTERED AT 17:25:04 ON 17 JUL 2004
L8         15775 S L7

     FILE 'REGISTRY' ENTERED AT 17:25:04 ON 17 JUL 2004
L9             1 S 4198-33-8/RN

     FILE 'CAPLUS' ENTERED AT 17:25:04 ON 17 JUL 2004
L10           19 S L9
L11            0 S L10 AND L8

     FILE 'REGISTRY' ENTERED AT 17:26:16 ON 17 JUL 2004
L12            1 S CHLOROSUCCINIC ANHYDRIDE/CN

     FILE 'CAPLUS' ENTERED AT 17:27:11 ON 17 JUL 2004
L13            3 S 1192-71-8/PREP
L14            0 S 1192-71-8/PROC
L15            0 S 1192-71-8/PUR

     FILE 'STNGUIDE' ENTERED AT 17:29:40 ON 17 JUL 2004
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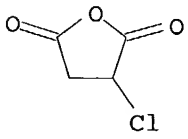
=> s chlorosuccinic anhydride/cn
L12 1 CHLOROSUCCINIC ANHYDRIDE/CN

=> d

L12 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2004 ACS on STN
RN 1192-71-8 REGISTRY
CN 2,5-Furandione, 3-chlorodihydro- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Succinic anhydride, chloro- (7CI, 8CI)
OTHER NAMES:
CN α-Chlorosuccinic anhydride
CN **Chlorosuccinic anhydride**
FS 3D CONCORD
DR 7414-69-9
MF C4 H3 Cl O3
LC STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS, CASREACT, TOXCENTER, USPATFULL
(*File contains numerically searchable property data)
DT.CA CAplus document type: Conference; Journal; Patent
RL.P Roles from patents: RACT (Reactant or reagent)
RLD.P Roles for non-specific derivatives from patents: USES (Uses)
RL.NP Roles from non-patents: PREP (Preparation); PRP (Properties); RACT (Reactant or reagent); NORL (No role in record)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

12 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
12 REFERENCES IN FILE CAPLUS (1907 TO DATE)
3 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> file caplus

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	7.04	32.29

FILE 'CAPLUS' ENTERED AT 17:27:11 ON 17 JUL 2004

FILE COVERS 1907 - 17 Jul 2004 VOL 141 ISS 4
FILE LAST UPDATED: 16 Jul 2004 (20040716/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

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=> s 1192-71-8/prep
            12 1192-71-8
       3172356 PREP/RL
L13           3 1192-71-8/PREP
                  (1192-71-8 (L) PREP/RL)

=> s 1192-71-8/proc
            12 1192-71-8
       3522417 PROC/RL
L14           0 1192-71-8/PROC
                  (1192-71-8 (L) PROC/RL)

=> s 1192-71-8/pur
            12 1192-71-8
        196302 PUR/RL
L15           0 1192-71-8/PUR
                  (1192-71-8 (L) PUR/RL)

=> d l13 1-3 ibib abs hitstr

L13  ANSWER 1 OF 3  CAPLUS  COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER:         1986:590736  CAPLUS
DOCUMENT NUMBER:          105:190736
TITLE:                    Total synthesis of antitumor agent AT-125,
                          (αS,5S)-α-amino-3-chloro-4,5-dihydro-5-
                          isoxazoleacetic acid
AUTHOR(S):                Baldwin, Jack E.; Cha, Jin K.; Kruse, Lawrence I.
CORPORATE SOURCE:         Dyson Perrins Lab., Oxford, OX1 3QY, UK
SOURCE:                   Tetrahedron (1985), 41(22), 5241-60
                          CODEN: TETRAB; ISSN: 0040-4020
DOCUMENT TYPE:            Journal
LANGUAGE:                 English
OTHER SOURCE(S):          CASREACT 105:190736
GI
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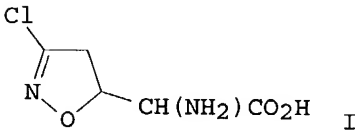

I

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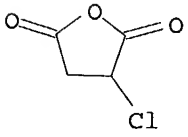
AB    A short and efficient total synthesis of racemic AT-125 (erythro-I) and
      racemic threo-I proceeds via an intramol. Michael cyclization of
      HONRCOCH2CH:C(CO2R1)NHCO2CH2Ph (R = 4-MeOC6H4CH2, R1 = CH2Ph; R = R2 = H).
      Separation of diastereomers and deprotection to erythro-I followed by enzymic
      resolution of the N-chloroacetamide with hog-kidney acylase provides
      (αS,5S)-I.
IT    1192-71-8P
      RL: RCT (Reactant); SPN (Synthetic preparation); PREP
      (Preparation); RACT (Reactant or reagent)
         (preparation and esterification of)
RN    1192-71-8  CAPLUS
CN    2,5-Furandione, 3-chlorodihydro- (9CI)  (CA INDEX NAME)
```

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L13  ANSWER 2 OF 3  CAPLUS  COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER:         1983:557799  CAPLUS
```
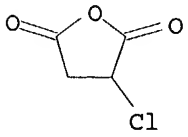

DOCUMENT NUMBER: 99:157799
TITLE: Preparation of monomethyl fumarate
AUTHOR(S): Dymicky, Michael
CORPORATE SOURCE: East. Reg. Res. Cent., Agric. Res. Serv., Philadelphia, PA, 19118, USA
SOURCE: Organic Preparations and Procedures International (1983), 15(4), 233-8
CODEN: OPPIAK; ISSN: 0030-4948
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 99:157799

AB Monomethyl maleate (I), which was prepared, was catalytically isomerized to monomethyl fumarate (II); HCl, AlCl3, and acyl chlorides were used as catalysts. Thus, fumaric acid reacted with ClCOCOCl to give maleic anhydride and chlorosuccinic anhydride, and the maleic anhydride was treated with MeOH to yield I. Mixts. of I and a catalyst were heated to 80-5° to give .apprx.82-5% II.

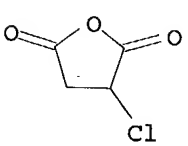
IT **1192-71-8P**
RL: SPN (Synthetic preparation); **PREP (Preparation)**
(preparation of)
RN 1192-71-8 CAPLUS
CN 2,5-Furandione, 3-chlorodihydro- (9CI) (CA INDEX NAME)



L13 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1972:462087 CAPLUS
DOCUMENT NUMBER: 77:62087
TITLE: Reaction of phosphorus(III) acid chlorides with conjugated heteroatomic systems
AUTHOR(S): Pudovik, A. N.; Khairullin, V. K.; Shagidullin, R. P.; Sobchuk, T. I.; Eliseenkov, V. N.; Vasyanina, M. A.
CORPORATE SOURCE: Inst. Org. Fiz. Khim. im. Arbuzova, Kazan, USSR
SOURCE: Khim. Primen. Fosfororg. Soedin., Tr. Vses. Konf., 3rd (1972), Meeting Date 1965, 220-30. Editor(s): Kabachnik, M. I. "Nauka": Moscow, USSR.
CODEN: 25HKAU
DOCUMENT TYPE: Conference
LANGUAGE: Russian

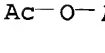
AB Heating RPCl2 (R = Et, p-MeC6H4) with R1CH:CHCO2H (R1 = H, Me) gave the corresponding RP(O) ClCHRCH2COCl in 37.0-80.5% yield; CH2:-CMeCO2H (I), HC.tplbond.CCO2H, and MeO2CCH2CO2H reacted analogously, and I also gave the corresponding cyclic anhydride. Similarly, RPClOR2 [II, R = Ph, p-MeC6H4; R2 = 1-trichloromethyl-1-cyclopentyl, CMe2CCl3, CH(CH2Cl)2] and CH2:CR1CO2H (R1 = H, Me) yielded the corresponding R2OP(O)RCH2CHR1COCl, and II (R2 = CH2CH2Cl, Et) afforded the cyclic anhydrides. These products underwent reactions characteristic of their functional groups.

IT **1192-71-8P**
RL: SPN (Synthetic preparation); **PREP (Preparation)**
(preparation of)
RN 1192-71-8 CAPLUS
CN 2,5-Furandione, 3-chlorodihydro- (9CI) (CA INDEX NAME)



```
> s acetic anhydride/cn
L6              1 ACETIC ANHYDRIDE/CN

=> d
```

L6 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2004 ACS on STN
RN 108-24-7 REGISTRY
CN Acetic acid, anhydride (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN **Acetic anhydride (8CI)**
OTHER NAMES:
CN Acetic oxide
CN Acetyl acetate
CN Acetyl anhydride
CN Acetyl ether
CN Acetyl oxide
CN Ethanoic anhydride
FS 3D CONCORD
MF C4 H6 O3
CI COM
LC STN Files: AGRICOLA, ANABSTR, AQUIRE, BEILSTEIN*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CHEMSAFE, CIN, CSCHEM, CSNB, DETHERM*, DIPPR*, EMBASE, ENCOMPLIT, ENCOMPLIT2, ENCOMPPAT, ENCOMPPAT2, GMELIN*, HODOC*, HSDB*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, MSDS-OHS, NIOSHTIC, PDLCOM*, PIRA, PROMT, PS, RTECS*, SPECINFO, SYNTHLINE, TOXCENTER, TULSA, ULIDAT, USPAT2, USPATFULL, VTB
(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)
DT.CA CAplus document type: Book; Conference; Dissertation; Journal; Patent; Report
RL.P Roles from patents: ANST (Analytical study); BIOL (Biological study); CMBI (Combinatorial study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)
RLD.P Roles for non-specific derivatives from patents: ANST (Analytical study); BIOL (Biological study); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)
RL.NP Roles from non-patents: ANST (Analytical study); BIOL (Biological study); CMBI (Combinatorial study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)
RLD.NP Roles for non-specific derivatives from non-patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)



=> s 4198-33-8 and 108-24-7
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Substance data SEARCH and crossover from CAS REGISTRY in progress...
Use DISPLAY HITSTR (or FHITSTR) to directly view retrieved structures.

L8 15775 L7

   REGIstRY INITIATED
Substance data SEARCH and crossover from CAS REGISTRY in progress...
Use DISPLAY HITSTR (or FHITSTR) to directly view retrieved structures.

L10 19 L9

L11 0 L10 AND L8

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L1                STRUCTURE UPLOADED
                  S L1

     FILE 'REGISTRY' ENTERED AT 15:51:21 ON 17 JUL 2004
L2              1 S L1

     FILE 'CAPLUS' ENTERED AT 15:51:22 ON 17 JUL 2004
L3              0 S L2
                  S L1

     FILE 'REGISTRY' ENTERED AT 15:51:29 ON 17 JUL 2004
L4             66 S L1 FULL

     FILE 'CAPLUS' ENTERED AT 15:51:30 ON 17 JUL 2004
L5             80 S L4 FULL
L6             13 S L5 AND ASPARTIC ACID
L7              0 S L6 AND SODIUM NITRILE
L8              0 S L6 AND SODIUM NITRITE
L9              0 S L6 AND SODIUM CHLORIDE
L10             6 S 4198-33-8/PREP
L11             1 S 4198-33-8/PROC
L12             0 S 4198-33-8/PUR
L13             7 S L10 OR L11
L14             5 S L13 AND ASPARTIC ACID
L15             0 S L14 AND SODIUM NITRITE
L16             0 S L14 AND SODIUM CHLORIDE

     FILE 'STNGUIDE' ENTERED AT 15:57:00 ON 17 JUL 2004

     FILE 'REGISTRY' ENTERED AT 15:59:00 ON 17 JUL 2004
L17             1 S SODIUM NITRITE/CN
L18             1 S SODIUM CHLORIDE/CN

     FILE 'CAPLUS' ENTERED AT 16:01:44 ON 17 JUL 2004
                  S L14 AND  7632-00-0/REG#

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L19             1 S 7632-00-0/RN

     FILE 'CAPLUS' ENTERED AT 16:02:20 ON 17 JUL 2004
L20         11721 S L19
L21             0 S L14 AND L20
                  S L14 AND  7647-14-5/REG#

     FILE 'REGISTRY' ENTERED AT 16:02:50 ON 17 JUL 2004
L22             1 S 7647-14-5/RN

     FILE 'CAPLUS' ENTERED AT 16:02:50 ON 17 JUL 2004
L23        119942 S L22
L24             0 S L14 AND L23

=>
```

```
=> s sodium nitrite/cn
L17          1 SODIUM NITRITE/CN

=> d

L17  ANSWER 1 OF 1  REGISTRY  COPYRIGHT 2004 ACS on STN
RN   7632-00-0  REGISTRY
CN   Nitrous acid, sodium salt (8CI, 9CI)  (CA INDEX NAME)
OTHER NAMES:
CN   Anti-Rust
CN   E 250
CN   Erinitrit
CN   Filmerine
CN   M 138C
CN   Nitrous acid sodium salt (1:1)
CN   Sodium nitrite
CN   Sodium nitrite (NaNO2)
CN   Synfat 1004
DR   56227-20-4, 82497-43-6, 82998-40-1, 32863-15-3
MF   H N O2 . Na
CI   COM
LC   STN Files:   ADISNEWS, AGRICOLA, ANABSTR, AQUIRE, BIOBUSINESS, BIOSIS,
       BIOTECHNO, CA, CABA, CANCERLIT, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS,
       CHEMINFORMRX, CHEMLIST, CIN, CSCHEM, CSNB, DDFU, DETHERM*, DIOGENES,
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       NAPRALERT, NIOSHTIC, PDLCOM*, PIRA, PROMT, RTECS*, TOXCENTER, TULSA,
       ULIDAT, USAN, USPAT2, USPATFULL, VETU, VTB
         (*File contains numerically searchable property data)
     Other Sources:   DSL**, EINECS**, TSCA**
         (**Enter CHEMLIST File for up-to-date regulatory information)
DT.CA  CAplus document type:  Book; Conference; Dissertation; Journal; Patent;
       Preprint; Report
RL.P   Roles from patents:  ANST (Analytical study); BIOL (Biological study);
       FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU
       (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT
       (Reactant or reagent); USES (Uses); NORL (No role in record)
RLD.P  Roles for non-specific derivatives from patents:  ANST (Analytical
       study); BIOL (Biological study); PREP (Preparation); PRP (Properties);
       RACT (Reactant or reagent); USES (Uses)
RL.NP  Roles from non-patents:  ANST (Analytical study); BIOL (Biological
       study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU
       (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT
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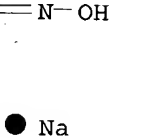

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          11710 REFERENCES IN FILE CA (1907 TO DATE)
             59 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
          11716 REFERENCES IN FILE CAPLUS (1907 TO DATE)


=> s sodium chloride/cn
L18          1 SODIUM CHLORIDE/CN

=> d

L18  ANSWER 1 OF 1  REGISTRY  COPYRIGHT 2004 ACS on STN
```

RN 7647-14-5 REGISTRY
CN Sodium chloride (NaCl) (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Salt (6CI, 7CI)
CN **Sodium chloride (8CI)**
OTHER NAMES:
CN Adsorbanac
CN Ayr
CN BCD
CN Brinewate Superfine
CN Canners 999
CN Common salt
CN Dendritic salt
CN Iodized salt
CN Mafiron
CN Natrum mur
CN NSC 77364
CN Sea salt
CN Sodium monochloride
CN Solsel
CN Special Salt 100/95
CN SS Salt
CN Table salt
CN Titrisol
CN Uzushio Biryuu M
CN Watesal A
OR 8028-77-1, 11062-32-1, 11062-43-4, 418758-90-4
MF Cl Na
CI COM
LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, AQUIRE, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CABA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSCHEM, CSNB, DDFU, DETHERM*, DIOGENES, DIPPR*, DRUGU, EMBASE, ENCOMPLIT, ENCOMPLIT2, ENCOMPPAT, ENCOMPPAT2, GMELIN*, HSDB*, IFICDB, IFIPAT, IFIUDB, IMSCOSEARCH, IPA, MEDLINE, MRCK*, MSDS-OHS, NIOSHTIC, PDLCOM*, PIRA, PROMT, RTECS*, TOXCENTER, TULSA, ULIDAT, USAN, USPAT2, USPATFULL, VETU, VTB
(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)
DT.CA CAplus document type: Book; Conference; Dissertation; Journal; Patent; Preprint; Report
RL.P Roles from patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)
RLD.P Roles for non-specific derivatives from patents: BIOL (Biological study); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)
RL.NP Roles from non-patents: ANST (Analytical study); BIOL (Biological study); CMBI (Combinatorial study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)
RLD.NP Roles for non-specific derivatives from non-patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)

l—Na

119747 REFERENCES IN FILE CA (1907 TO DATE)
372 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
119847 REFERENCES IN FILE CAPLUS (1907 TO DATE)
75 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

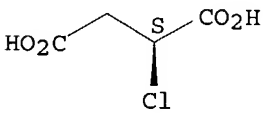
L6 ANSWER 1 OF 13 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2001:455119 CAPLUS
DOCUMENT NUMBER: 135:211197
TITLE: Synthesis of N4-(2-acetamido-2-deoxy-β-D-glucopyranosyl)-L-asparagine analogs. L-2-chloro-, L-2-bromo-, and D,L-2-methylsuccinamic acid analogs
AUTHOR(S): Xia, Yuan-Qing; Risley, John M.
CORPORATE SOURCE: Department of Chemistry, The University of North Carolina at Charlotte, Charlotte, NC, 28223, USA
SOURCE: Journal of Carbohydrate Chemistry (2001), 20(1), 45-55
CODEN: JCACDM; ISSN: 0732-8303
PUBLISHER: Marcel Dekker, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 135:211197

AB L-Chlorosuccinic anhydride, L-bromosuccinic anhydride, and D,L-methylsuccinic anhydride react with 2-acetamido-2-deoxy-β-D-glucopyranosylamine to give varying mixts. of N4-(β-GlcNAc)-2-substituted- and N4-(β-GlcNAc)-3-substituted-succinamic acid isomers. The two regioisomers are separated by anion exchange chromatog. The N4-(β-GlcNAc)-2-substituted-succinamic acid isomers are characterized as analogs of N4-(2-acetamido-2-deoxy-β-D-glucopyranosyl)-L-asparagine.

IT **4198-33-8P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(synthesis of N4-(2-acetamido-2-deoxy-β-D-glucopyranosyl)-L-asparagine analogs)

RN 4198-33-8 CAPLUS
CN Butanedioic acid, chloro-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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L13          7 L10 OR L11

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L14          5 L13 AND ASPARTIC ACID

=> s l14 and sodium nitrite
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         51849 NITRITE
         10966 SODIUM NITRITE
                (SODIUM(W)NITRITE)
L15          0 L14 AND SODIUM NITRITE

=> s l14 and sodium chloride
        936629 SODIUM
        994492 CHLORIDE
        112261 SODIUM CHLORIDE
                (SODIUM(W)CHLORIDE)
L16          0 L14 AND SODIUM CHLORIDE

=> d l14 1-5 ibib abs hitstr

L14  ANSWER 1 OF 5  CAPLUS  COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER:        2001:455119  CAPLUS
DOCUMENT NUMBER:         135:211197
TITLE:                   Synthesis of N4-(2-acetamido-2-deoxy-β-D-
                         glucopyranosyl)-L-asparagine analogs. L-2-chloro-,
                         L-2-bromo-, and D,L-2-methylsuccinamic acid analogs
AUTHOR(S):               Xia, Yuan-Qing; Risley, John M.
CORPORATE SOURCE:        Department of Chemistry, The University of North
                         Carolina at Charlotte, Charlotte, NC, 28223, USA
SOURCE:                  Journal of Carbohydrate Chemistry (2001), 20(1), 45-55
                         CODEN: JCACDM; ISSN: 0732-8303
PUBLISHER:               Marcel Dekker, Inc.
DOCUMENT TYPE:           Journal
LANGUAGE:                English
OTHER SOURCE(S):         CASREACT 135:211197
AB   L-Chlorosuccinic anhydride, L-bromosuccinic anhydride, and
     D,L-methylsuccinic anhydride react with 2-acetamido-2-deoxy-β-D-
     glucopyranosylamine to give varying mixts. of N4-(β-GlcNAc)-2-
     substituted- and N4-(β-GlcNAc)-3-substituted-succinamic acid isomers.
     The two regioisomers are separated by anion exchange chromatog.  The
     N4-(β-GlcNAc)-2-substituted-succinamic acid isomers are characterized
     as analogs of N4-(2-acetamido-2-deoxy-β-D-glucopyranosyl)-L-
     asparagine.
IT   4198-33-8P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP
     (Preparation); RACT (Reactant or reagent)
        (synthesis of N4-(2-acetamido-2-deoxy-β-D-glucopyranosyl)-L-
        asparagine analogs)
RN   4198-33-8  CAPLUS
CN   Butanedioic acid, chloro-, (2S)- (9CI)  (CA INDEX NAME)

Absolute stereochemistry.
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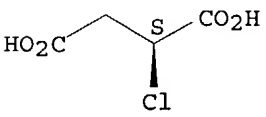


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REFERENCE COUNT:         24    THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS
                               RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14  ANSWER 2 OF 5  CAPLUS  COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER:        2000:824210  CAPLUS
DOCUMENT NUMBER:         133:350513
TITLE:                   Process for preparing R-(-)-carnitine from
                         S-(-)-chlorosuccinic acid or derivative
INVENTOR(S):             Melloni, Piero; Cerri, Alberto; Santagostino, Marco
PATENT ASSIGNEE(S):      Sigma-Tau Industrie Farmaceutiche Riunite S.p.A.,
                         Italy
```

SOURCE: PCT Int. Appl., 42 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000069808	A1	20001123	WO 2000-IT187	20000512
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
IT 1306142	B1	20010530	IT 1999-RM310	19990518
IT 1306737	B1	20011002	IT 1999-RM670	19991029
EP 1187805	A1	20020320	EP 2000-927737	20000512
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2002544252	T2	20021224	JP 2000-618226	20000512
US 6677476	B1	20040113	US 2001-959717	20011106
US 2004102645	A1	20040527	US 2003-716453	20031120

PRIORITY APPLN. INFO.:
IT 1999-RM310 A 19990518
IT 1999-RM670 A 19991029
IT 2000-RM61 A 20000210
WO 2000-IT187 W 20000512
US 2001-959717 A3 20011106

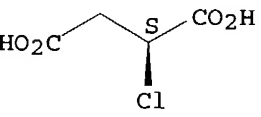
OTHER SOURCE(S): CASREACT 133:350513; MARPAT 133:350513

AB L-Carnitine inner salt was prepared by reduction of (S)-X1COCH2CH(Y)COX2 [X1, X2 = OH, C1-C4 alkoxy, phenoxy, halo or X1X2 = O; Y = halo, mesyloxy, or tosyloxy]. Thus, a 1 M solution of borane in THF was added over 2 h to a suspension of (S)-2-chlorosuccinic acid in THF maintained at -15° and the mixture kept at this temperature for 20 h to afford 50% L-carnitine, following workup.

IT **4198-33-8P**, s-Chlorosuccinic acid
RL: RCT (Reactant); SPN (Synthetic preparation); **PREP (Preparation)**; RACT (Reactant or reagent)
(preparation of R-(-)-carnitine from S-(-)-chlorosuccinic acid)

RN 4198-33-8 CAPLUS
CN Butanedioic acid, chloro-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1994:203216 CAPLUS
DOCUMENT NUMBER: 120:203216
TITLE: Collection of enantiomer separation factors obtained by capillary gas chromatography on chiral stationary phases
AUTHOR(S): Anon.
CORPORATE SOURCE: Germany
SOURCE: Journal of High Resolution Chromatography (1993), 16(6), 338-52
CODEN: JHRCE7; ISSN: 0935-6304
DOCUMENT TYPE: Journal

LANGUAGE: English

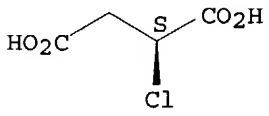
AB The separation factors obtained by capillary gas chromatog. on heptakis(2,6-di-O-methyl-3-O-pentyl)-β-cyclodextrin chiral stationary phases are given for many enantiomers.

IT **4198-33-8**, (-)-Chlorosuccinic acid
RL: PEP (Physical, engineering or chemical process); **PROC (Process)**
(separation of, from enantiomer by capillary GC on cyclodextrin derivative chiral stationary phases)

RN 4198-33-8 CAPLUS

CN Butanedioic acid, chloro-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L14 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1992:550813 CAPLUS

DOCUMENT NUMBER: 117:150813

TITLE: An efficient synthesis of enantiomerically pure (R)-(2-benzyloxyethyl)oxirane from (S)-**aspartic acid**

AUTHOR(S): Frick, Jeffrey A.; Klassen, John B.; Bathe, Andreas; Abramson, Jill M.; Rapoport, Henry

CORPORATE SOURCE: Dep. Chem., Univ. California, Berkeley, CA, 94720, USA

SOURCE: Synthesis (1992), (7), 621-3
CODEN: SYNTBF; ISSN: 0039-7881

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 117:150813

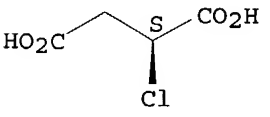
AB A 3-step synthesis of the title compound (I) from (S)-**aspartic acid** (II) is described. Thus, II reacted with NaNO2/KBr to give (S)-(-)bromosuccinic acid which was reduced to (S)-2-bromo-1,4-butanediol (III). III was treated with NaH/THF and PhCH2Br/tetrabutylammonium iodide to give I in 78% yield. The overall yield of this process is 65% and the enantiomeric purity (ep) of the product is greater than 99%.

IT **4198-33-8P**
RL: RCT (Reactant); SPN (Synthetic preparation); **PREP (Preparation)**; RACT (Reactant or reagent)
(preparation and reduction of)

RN 4198-33-8 CAPLUS

CN Butanedioic acid, chloro-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L14 ANSWER 5 OF 5 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1987:633196 CAPLUS

DOCUMENT NUMBER: 107:233196

TITLE: Application of deuterium NMR spectroscopy to study the incorporation of enantiomeric [2-2H]-labeled putrescines into the pyrrolizidine alkaloid retrorsine

AUTHOR(S): Kunec, Ellen K.; Robins, David J.

CORPORATE SOURCE: Dep. Chem., Univ. Glasgow, Glasgow, G12 8QQ, UK

SOURCE: Journal of the Chemical Society, Perkin Transactions 1: Organic and Bio-Organic Chemistry (1972-1999) (1987), (5), 1089-93
CODEN: JCPRB4; ISSN: 0300-922X

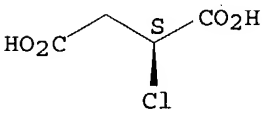
DOCUMENT TYPE: Journal
LANGUAGE: English

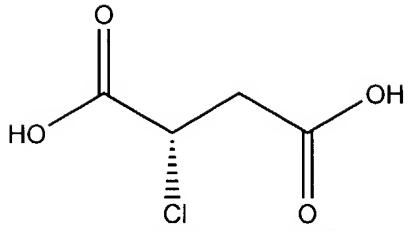
AB A sample of (2R)-[2-2H]putrescine-2HCl was prepared from (2S)-**aspartic acid**, and (2S)-[2-2H]putrescine-2HCl was synthesized from (2R)-**aspartic acid**. Feeding expts. carried out with these precursors on Senecio isatideus plants gave retrorsine containing 2H, and the distribution of 2H from each experiment in retrorsine was determined by 2H NMR spectroscopy. All of the 2H was confined to the base component of the alkaloid, retronecine. Retrorsine, derived biosynthetically from (2R)-[2-2H]putrescine -2HCl was labeled with 2H at C-2 and C-6α, while retrorsine, produced from (2S)-[2-2H]putrescine-2HCl contained 2H labels at C-6β and C-7α. These labeling patterns demonstrate that hydroxylation at C-7 of retronecine proceeds with retention of configuration. In addition, the formation of the 1,2-double bond of retronecine involves removal of the pro-S hydrogen and retention of the pro-R hydrogen at the C atom which becomes C-2 of retronecine.

IT **4198-33-8P**
RL: RCT (Reactant); SPN (Synthetic preparation); **PREP (Preparation)**; RACT (Reactant or reagent)
(preparation and methylation of)

RN 4198-33-8 CAPLUS
CN Butanedioic acid, chloro-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.





s(-)-chlorosuccinic acid

Caution: Stereochemical terms discarded: -